

### PART 3: APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Standard, Requirement, Criteria, or Limitation	Citation	Potentially Applicable	Potentially Relevant and Appropriate	Description	Comments
<b>SUMMARY OF POTENTIAL CHEMICAL-SPECIFIC ARARs/TBCs</b>					
1. Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings Radium-226	40CFR 192.12(a)	No	Yes, regulations are RAR because of site similarity with sites where this regulation is applicable.	Standard for clean-up of soils at inactive uranium processing sites.	Guidance for use of this regulation as an ARAR at Superfund Sites is provided by OSWER Guidance No. 9200.4-25.
2. Guidance on the Use of 40 CFR 192 to Establish Soil Cleanup Criteria at CERCLA Sites	OSWER 9200.4-25	No	TBC	Provides guidance regarding the circumstances under which the subsurface soil cleanup criteria in 40 CFR Part 192 should be considered ARARs for radium and thorium	The subsurface “finding tool” of 15 pCi/g is only a consideration when there is no significant contamination between 5 and 30 pCi/g, so that use of the finding tool will result in cleanup levels of 5 pCi/g or less. In situations where there is significant contamination between 5 and 30 pCi/g, 5 pCi/g is recommended as a cleanup level if this level is within the risk range.

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3. Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings <b>Radon-222</b>	40 CFR 192.02(a) &(b)(1)&(2)	No	Yes, regulations are RAR because of site similarity with sites where this regulation is applicable.	Control of residual radioactive materials and their listed constituents shall have design goals or standards.	Standard for post-closure management of uranium or thorium by-product material
4. Radiation Control Act - Standards for protection against radiation/licensing of radioactive materials	10 CFR 20,30,40,70	No	Yes, regulations are RAR because of site similarity with sites where this regulation is applicable.	Substantive provisions are potentially relevant and appropriate to non-licensed materials. These include provisions concerning permissible doses, levels and concentration standards. Use of PPE and environmental monitoring.	
	6 CCR 1007-1 Parts 1,2,4,10				
5. Standards for protection against radiation	10 CFR 20, 30,40,70	No	Yes, regulations are RAR because of site similarity with sites where this regulation is applicable.	Substantive provisions are potentially relevant and appropriate to non-licensed materials. These include provisions concerning permissible doses, levels and concentration standards. Use of PPE and environmental monitoring.	

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6. Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings <b>Radiation General</b>	40 CFR 192.41(d)	No	Yes, regulations are RAR because of site similarity with sites where this regulation is applicable.	During operations and prior to closure operations shall be conducted in such a manner as to provide reasonable assurance that the annual dose equivalent does not exceed 25 millirems to the whole body, 75 millirems to the thyroid, and 25 millirems to any other organ of any member of the public as a result of exposures to the planned discharge of radioactive materials, radon- 220 and its daughters excepted, to the general environment.	
7. Federal Guidance Report No. 11. <b>Radiation Dose</b>	Federal guidance Report No. 11		TBC	Federal guidance Report No. 11 provides recommended Annual limits on intake and derived air concentrations to be implemented by Federal agencies to limit intake of radioactive materials by workers.	
8. National Emission Standards for Hazardous Air Pollutants	40 CFR 61	No	Yes	NESHAPs concerning radon emissions from the disposal of uranium mill tailings , subpart T, from underground uranium mines, Subpart B from Department of Energy facilities, Subpart Q, or from operating mill tailings, Subpart W may be relevant and appropriate. Also, NESHAPs concerning emissions of radionuclides other than radon from DOE facilities, Subpart H, and from federal facilities other than Nuclear Regulatory Commission Licensees and not covered by Subpart H, Subpart I may be relevant and appropriate.	

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9. Clean Air Act, National Primary and Secondary Ambient Air Quality Standards	42 USC Sect. 7401-7642, 40 CFR Part 50	Yes	---	National ambient air quality standards (NAAQS) are implemented through the New Source Review Program and State Implementation Plans (SIPs). The federal New Source Review Program addresses only major sources.	Emissions associated with proposed remedial actions are expected to be limited to fugitive dust emissions associated with demolition and earth moving activities. These activities are not expected to constitute a major source. Federal NAAQS more stringent than State standards may be applicable. Compliance with these standards will be addressed in a Fugitive Emissions Dust Control Plan.
10. Colorado Ambient Air Quality Standards	5 CCR 1001	Yes	---	Primary and secondary standards for PM10 in ambient air. Federal and State TSP standards have been replaced with PM10 and PM2.5 standards.	Compliance with ambient air standards will be achieved by adhering to a Fugitive Emissions Dust Control Plan prepared in accordance with Regulation No. 1. This plan will discuss monitoring requirements, if any, necessary to achieve these standards.

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11. Colorado Air Pollution Prevention and Control Act, Regulation 8	5 CCR 1001-14; 5 CCR 1001-10, Regulation 8	Yes	---	Regulation No. 8 adopts the Federal NESHAPS. Applicants are required to evaluate whether the proposed activities would result in an exceedance of this standard.	Fugitive dust emissions are expected to be of limited nature, occur in isolated areas and for short periods of time. Emissions may occur but are not expected to exceed the emission levels in Regulation 8. Compliance with Regulation No. 8 will be achieved by adhering to a fugitive emissions dust control plan prepared in accordance with Regulation No. 1. This plan will discuss monitoring requirements, if any, necessary to achieve these standards.
12. Guidance on Cleanup Levels for CERCLA Sites with Radioactive Contamination	OSWER No. 9200.4-18	No	TBC	Clarifies that cleanups of radionuclides are governed by the risk range (generally 10-4 to 10-6) for all carcinogens when ARARs are not available or are not sufficiently protective.	Cancer risks should be estimated using slope factors. Also includes determination that dose limits in NRC decommissioning rule (e.g., 25/100 mrem/yr EDE) should not be used to establish cleanup levels under CERCLA.

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13. Radiation Risk Assessment Q & A	OSWER No. 9200.4-31P	No	TBC	Provides an overview of current EPA guidance for risk assessment and related topics.	Establishes guidance that dose assessments will be conducted only for ARAR compliance. Therefore, dose recommendations should not be used as TBCs.

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<b>SUMMARY OF POTENTIAL LOCATION-SPECIFIC ARARs</b>					
14. Resource Conservation and Recovery Act (RCRA), Subtitle D	40 CFR Part 258.10-15	No	Yes	Facilities where treatment, storage or disposal of solid waste will be conducted must meet certain location standards. These include location restrictions on proximity to airports, floodplains, wetlands, fault areas, seismic impact zones, and unstable areas. The wastes at Shattuck are not considered solid wastes, so these provisions are at most potentially relevant and appropriate.	
15. Colorado Radiation Control Act - Licensing Requirements for the Disposal of Low Level Radioactive Waste	CRS 25-11-101 to 25-11-305	No	Yes	Portions of this regulation dealing with siting and design criteria for land disposal of low level radioactive waste may be relevant and appropriate.	
	6 CCR 1007-1 Part 14, Subparts .2,.7,.8,.15,.19-.22,.23.1.1,.23.1.5 , .23.1.6, .24,.26				
16. Colorado Radiation Control Act - Milling of Uranium, Thorium and Related Radioactive Materials	CRS 25-11-101 to 25-11-305	No	Yes	Portions of this regulation dealing with siting and design criteria for land disposal of uranium and thorium milling wastes may be relevant and appropriate.	
	6 CCR 1007-1 Part 18				

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<b>SUMMARY OF POTENTIAL ACTION-SPECIFIC ARARs/TBCs</b>					
17. Colorado Air Pollution Prevention and Control Act, Fugitive Dust Control Plan/Opacity, Regulation No. 1	5 CCR 1001-3; § III.D.1.b,c,d. § III.D.2.a,b,cd,e,f, g Regulation 1	Yes	---	Regulation No. 1 provisions concerning fugitive emissions for construction activities, material handling and storage, demolition activities, haul roads, and haul trucks are potentially applicable.	
18. Colorado Air Pollution Prevention and Control Act, APENs Regulation No. 3	5 CCR 1001-5, Regulation 3	Yes	---	Establishes emissions control regulations for construction or modification of stationary sources.	Substantive provisions are potentially applicable.
19. Colorado Air Pollution Prevention and Control Act, Odors, Regulation No. 2	5 CCR 1001-4	Yes	---	Applies to any remedial action that may create regulated odors.	Proposed remedial actions are not expected to create regulated odors.
20. Solid Waste Disposal Act (SDWA) as amended by RCRA, Criteria for Classification of Solid Waste Disposal Facilities and Practices (Subtitle D)	42 USC Sect. 6901-6987, 40 CFR Part 257	No	Yes	Establishes minimum standards, closure requirements, site standards, and engineering design standards for solid waste disposal facilities.	
21. Solid Wastes Disposal Sites and Facilities Regulations	CRS 30-20-101 to -118, 6 CCR 1007-2				



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22. Colorado Noise Abatement Act	CRS §§ 25-12-101 to 108	Yes	---	Establishes maximum permissible noise levels for particular time periods and land use zones.	Applicable if construction activities occur in residential areas.
23. Colorado Water Quality Control Act Stormwater Discharge Regulations	5 CCR 1002.2	Yes	---	Establishes stormwater control requirements for construction activities.	Potentially applicable if construction activities occur as part of the remedial action.
24. Colorado Hazardous Waste Regulations	6 CCR 1007-3, Part 264: Section 264.301, (g), (h), (i) and (j); Section 264.310 (a)(1) through (a)(4); Section 264.310, (b)(1) and (b)(5)	No	Yes	Specific provisions of Section 264 concern run-on control, run-off control, management of run-on and run-off control systems, and cap design standards	The wastes here are not hazardous wastes, but specific provisions of the hazardous waste regulations may be relevant and appropriate in certain circumstances depending on site-specific conditions. The determination of whether such requirements will be both relevant and appropriate to the activities to be undertaken in OU8 will be based on best professional judgement and is conducted on a site specific basis taking into account the physical nature and location of the media involved, whether the requirements are well suited to the site conditions, and other factors.